

InsideTVA

TVA's Leadership Standard: Achieve Excellence in Business Performance and Public Service

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TVA: Seven Decades of Service

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From left in TVA's System Operations Center in Chattanooga, Transmission Operators Julio Bolano, Jeff Murray, Mark Carter, Yasmin Chargualf and System Operator Pat Pace

Girding the grid for the heavy demands of competition

As the search continued in the weeks following Aug. 14 for the cause of the worst blackout ever to hit North America, the compound question most often heard was, "Could it happen again, and could it happen here?"

The short answer, according to many transmission experts, is that it could happen again virtually anywhere on the Eastern Interconnection, unless steps are taken to modernize the nation's transmission hardware and the rules that keep it running.

The Eastern Interconnection — "the grid," for short — is a vast collection of transmission lines, transformers, switches and breakers linked together from Key West to Canada and from the Atlantic Coast to the Rocky Mountains. Texas and the Western states are served by grids that are almost completely separate electrically.

The Eastern grid began as a series of independent transmission systems

The Northeast BLACKOUT

built to move power from local power plants to nearby cities or areas of heavy power-consumption. Over time, these transmission systems expanded and were connected with one another, allowing utilities to swap limited amounts of power.

"The ability to exchange a couple of thousand megawatts was extremely useful, especially if a utility had spare power to help others during emergencies or when prices were high," says Terry Boston, Executive Vice President of Transmission/Power Supply.

"But these exchanges were comparatively small and were intended to ensure reliability — no one expected us to use the grid to move thousands of megawatts halfway across the country."

Electricity restructuring has opened

the grid to competition, and tens of billions of dollars have flown into new power plants, each wanting to sell power into a potentially profitable wholesale market.

"The problem is that, nationally, investments in transmission — the essential trade routes to move this power to market — simply haven't kept pace," Boston says.

TVA has built 986 miles of new transmission line in the last seven years, most of it intended to serve customers in the Tennessee Valley.

But because of uncertainty over industry rules and questions about who will pay for new transmission investments, most other utilities have not built enough new transmission capacity needed to move large amounts of power long distances.

"All of this starts looking like a perfect storm for grid disasters," Boston says. "Nationally, we're putting unprecedented demand on a grid that's already overtaxed and that isn't being

expanded fast enough.

"At the same time, we're all interconnected, and a voltage collapse on one system can bring down systems hundreds

See "Grid" on page 4



Affordable,
reliable power

what's new

IN EMPLOYEE NEWS

Stakeholder information available to employees

To assure full and accurate disclosure of its financial condition, TVA has adopted a financial code of ethics and financial reporting practices that are consistent with the goals of the Sarbanes-Oxley Act of 2002.

TVA now sends a letter and fact sheet quarterly to a growing list of nonfinancial stakeholders — currently numbering about 6,000 — summarizing its recent financial and operational performance. For employees, the letter and fact sheet are on TVA's internal Web site.

TVA also issues news releases to Tennessee Valley and national media containing similar information.

In addition, a detailed financial report is made available to investors and other financial stakeholders. This information is accessible to employees and the public on TVA's external Web site at www.tva.com/finance/reports.

FY '04 rate increase to serve 2 critical needs

At its Aug. 27 meeting in Knoxville, the TVA Board heard expressions of support and opposition, following detailed presentations by the Chief Financial Officer and the Executive Vice President of Customer Service & Marketing on two crucial and differing issues.

The first was for additional funding for clean-air improvements at TVA fossil plants. The second was to more equitably distribute TVA's costs to serve various customer groups and to make manufacturing rates more competitive.

And then, by unanimous vote, the Board approved rate actions to fund clean-air improvements for the next 10 years and to help retain manufacturing jobs in the Tennessee Valley. Overall, the approved increase in electric revenues — the first rate hike since 1997 and only the second in 16 years — is 6.1 percent.

"We are installing the latest clean-air technology at our coal-fired plants because it is the right thing to do," Chairman Glenn McCullough said. "This 10-year environmental adjustment in our

See "Rate increase" on page 2

See special 4-page insert — Part 4 of "Understanding How TVA Works"

InsideTVA

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Rate increase

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rates will help pay the \$1 million a day we are investing to do our part in providing clean air and clear skies to the people of the Valley in the 21st century.”

Among some of the 19 speakers, the need for the environmental adjustment in rates was not a matter of contention. The biggest dissenting voice — that of the Tennessee Valley Public Power Association — wanted the rate increase spread over all customers, including the large manufacturers. TVPPA represents 157 distributors of TVA power.

As approved, the rate actions have the

At the Aug. 27 Board meeting, speakers include Prentiss County (Miss.) Electric Power Association Manager Ronny Rowland, above, Knoxville Utilities Board President/CEO Larry Fleming, above right, and Chattanooga EPB President/CEO Harold DePriest, right. Fleming was among those voicing support for the rate increase and its structure. DePriest, in his capacity as Tennessee Valley Public Power Association Chairman, and Rowland were among those opposing the rate structure's inclusion of a 2-percent decrease for large industrial customers.

net result of an average 7.4-percent increase in wholesale residential and non-manufacturing rates and a 2-percent decrease in wholesale rates for large manufacturers with loads of 1 megawatt or greater. The result will be about \$365 mil-



Photos by STEVE CORUM

lion in additional revenue for TVA during the 2004 fiscal year, beginning Oct. 1.

(For more information, see the “OnlineExtra” version of this story on page 13.)

— JIM ANDREWS

Insidebriefs

TVA/TVAN

While TVA Nuclear had problems with units tripping last month, there was very good news, as well. It was announced that all three TVA nuclear-power plants — Browns Ferry, Sequoyah and Watts Bar — rank among the most efficient generators in the country for 2002 and over the past three years, according to the Aug. 7 issue of *Nucleonics Week*. TVA is the only utility listed with three plants among the top 15 most efficient generators for 2002 and for the three-year period of 2000-2002. *Nucleonics Week*, an industry publication, reports Sequoyah earned the title of the most efficient generator in the country over the past three years by producing power at 11.48 mills per kilowatt-hour from 2000-2002. (The 11.48 mills/kwh figure is the same as 1.148 cents/kwh; TVA's Delivered Cost of Power is currently at 4.15 cents/kwh). Browns Ferry comes in second at 12.06 mills/kwh, and Watts Bar ranks 12th at 14.39 mills/kwh. For the most recent single-year performance, 2002, Sequoyah ranks as the second-most efficient generator, with operations-and-maintenance costs at 11.64 mills/kwh. That follows closely behind Duke Power's Catawba plant, the top-ranked generator, at 11.33 mills/kwh. Browns Ferry ranks fourth and Watts Bar 13th among the listing of the most efficient plants for 2002, with O&M spending at those plants at 11.88 mills/kwh and 14.23 mills/kwh, respectively. The *Nucleonics Week* rankings are based on

information provided by 43 plants. About 20 plants did not provide O&M spending information for the listing.

TVA/ED

Director Bill Baxter is scheduled to be among the speakers at the Fall 2003 Tennessee Valley Corridor Summit Oct. 6-7 at The Chattanooga Hotel. U.S. Rep. Zach Wamp of Tennessee and Chattanooga Mayor Bob Corker announced Aug. 25 that the annual event would be held this year in Chattanooga. Corker will chair the event, with

Billie Queen, Manager of Economic Development Field Operations for TVA, and SimCenter Director Dave Whitfield from the University of Tennessee-Chattanooga co-chairing and leading a regional blue-ribbon steering committee helping plan it. The summit, with a theme of “Where Technology Meets the Marketplace,” will focus on how the Tennessee Valley as a region can best leverage its major regional institutions and their abundant science and technology assets for maximum private-sector job creation. For more information visit www.tennvalleycorridor.org.

what's new online

BC looks at ED

When TVA's Business Council met Aug. 13-14 in Huntsville, Ala., the 56 members studied how all parts of TVA support development of the regional economy.

The theme of the meeting was “One Source. Seven States. Our Vital Roles in the Valley Economy.”

Chairman Glenn McCullough talked about the need for TVA to strike a balance on its “three E's — Energy, Environment and Economic Development.” And Senior Vice President of Economic Development John Bradley discussed how his organization is stepping up to the challenges of an increasingly competitive economic-development marketplace.

A full report on the meeting, with a selection of photos, is available on the Business Council portion of TVA's internal Web site, accessible from the Performance Initiatives page.



MARK DAVIS

Business Council member Randy Trusley looks over a lapful of information at the BC meeting in Huntsville, Ala., last month.

WP in stretch run, ED gains stretch goal

As the end of the fiscal year draws nearer, the latest results — for July — revealed few substantive changes from previous months.

The Customer goals of Customer Satisfaction and Economic Development comprise 20 percent of the scorecard and continue to outpace other measures.

The Economic Development index has already surpassed the stretch goal, while Customer Satisfaction has a year-end forecast to achieve the mid-level.

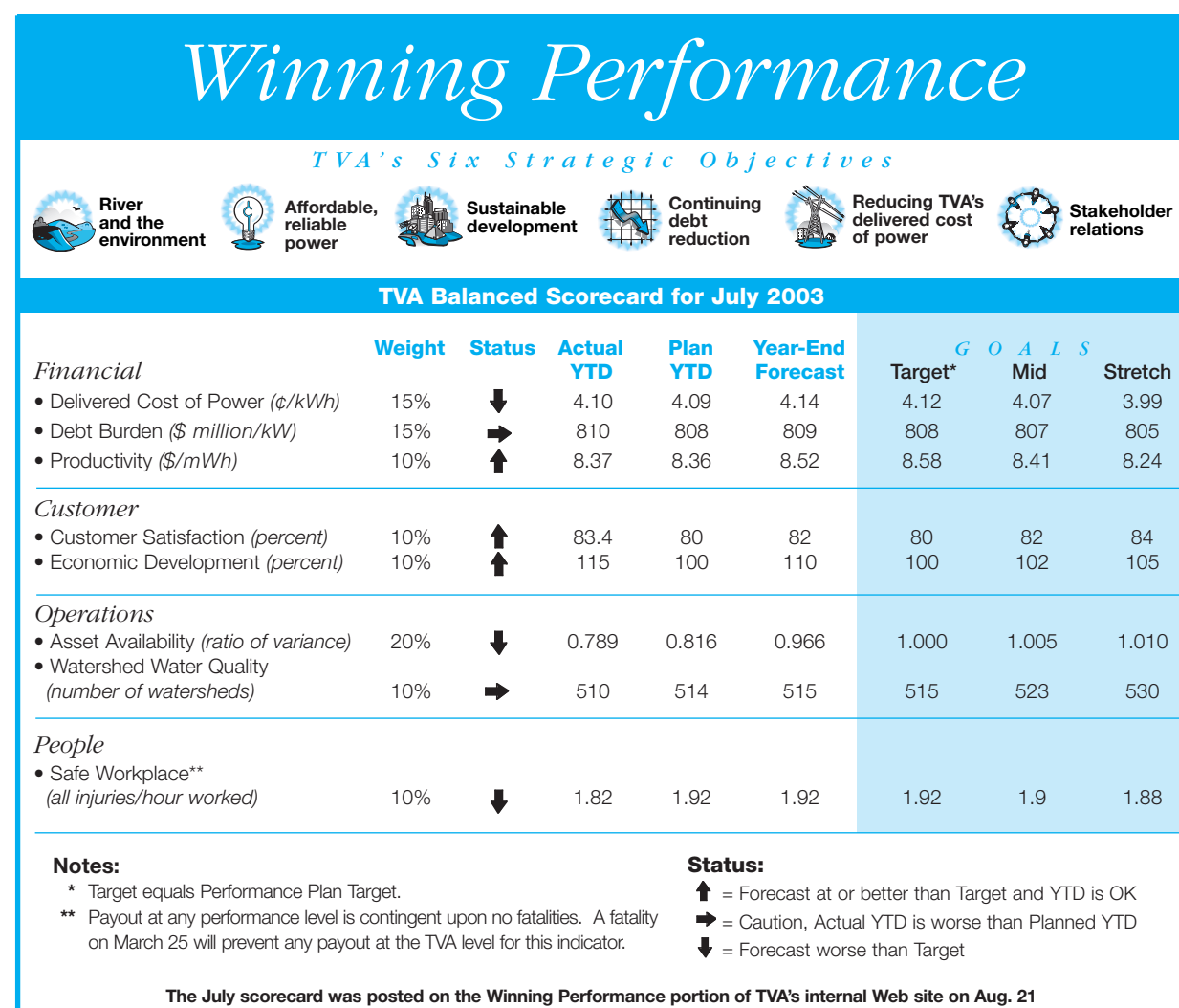
Employees' payout is based on three potential performance payout levels — target (3.75 percent), mid- (5 percent) and stretch (6.25 percent). Payouts are based on meeting TVA scorecard indicators and applicable Strategic Business Unit and Business Unit indicators.

The weighting factor applied to each performance measure reflects the measure's contribution in achieving TVA's goals and objectives relative to the other measures on the Scorecard.

TVA leadership made the decision to keep the Productivity status arrow upward, although the actual year-to-date of 8.37 is above the plan year-to-date of 8.36. It is anticipated the end-of-year forecast can still be met. The actual year-to-date figure was above plan due to an increase of \$2.1 million in the total amount of nonfuel operations and maintenance as a result of unanticipated outage costs.

Two measures — Debt Burden and Watershed Water Quality — remain on the cusp with sideward caution arrows.

"We saw improvement in July, and we've been busy in the fourth quarter processing new information for about 25 percent of our 611 hydrologic units," says Resource Stewardship Vice President Bridgette Ellis.



"We're seeing positive results in several areas where we have been working with partners to improve conditions. Final results will be available by mid-September."

Of the three measures with downward status arrows, only Delivered Cost of Power might possibly

be reached. Additional savings of \$22 million between now and the end of the fiscal year would decrease DCOP to 4.12, which would meet the target goal for that measure. This assumes that the forecasted kwh sales level is maintained.

— GAIL COX

TVA-wide culture improving, but more speed needed in FY '04

"The measure of success is not whether you have a tough problem to deal with, but whether it is the same problem you had last year."

TVA Winning Behavior— Seek to improve work processes

— from Shawnee Fossil Plant's monthly Human Performance Review newsletter

Winning Performance and Winning Behaviors *have* become a way of life at Shawnee Fossil Plant. The proof is not just in the Cultural Health Index numbers, but in the way management and employees interact.

"Open, honest communication is a focus at the plant," says Bill Guill, Manager of Methods & Processes. "And managers 'walk the talk,' interacting with employees whenever they have an opportunity."

Throughout TVA, Winning Performance/Winning Behaviors as a way of life is on the rise. Those results are reflected in the July 2003 Cultural Health Index survey, in which about 60 percent of the workforce provided feedback.

Guill says through meetings, posters and e-mails, employees are being continuously reminded of the status of the Winning Performance scorecards and of the employees' importance to the plant's, and TVA's, success.

"We make it a point to let employees know we appreciate what they do," he says. "Without their hard work and dedication, we wouldn't be doing as well as we are."

Not only are Shawnee's CHI results continuing to improve each year, the scorecard results also are continuing to be outstanding.

"All of our arrows are pointing up. That's because the employees are open to change and look at it as an opportunity. From the people working in the heat and noise inside to the folks outside handling coal on the hottest and coldest days of the year, they are showing a lot of pride in their plant and in what they do."

Responding to the statement "Winning Performance is a way of life in my business unit/plant," agreement across TVA increased 11 percent, from 57 percent in July 2002 to 68 percent this year. At Shawnee, it increased from 40 percent in 2002 to 64 percent in 2003.

On the similar statement about Winning Behaviors, the TVA-wide score

increased 9 percent, from 55 percent a year ago to 64 percent this year. At Shawnee, it was 73 percent, up from 54 percent.

However, on the statement "In my workgroup, we act quickly to improve our performance" — a key to preparing for the competition of a deregulated electric-utility industry — the TVA-wide score increased only 2 percent to a total of 81 percent.

"For TVA to be successful in a competitive industry, all employees — managers, supervisors, frontline workers, everyone — must continue to emphasize speed and improvement in performance," says Chief Operating Officer Ike Zeringue. "We are doing a good job. We just need to do it even better."

Among job families, Trades & Labor employees showed the most improvement in CHI scores overall. Agreement with the statement "I trust what I hear from TVA" was 13-percent higher than in 2002, the highest increase of any job family.

Managers will receive their CHI reports in mid-September, and the results are being posted on TVA's internal Web site, along with past years' results, for comparison.

— NANCY CANN



From left, Bill Guill facilitates a paper-copy session of the Cultural Health Index for Shawnee Fossil Plant Maintenance employees Linda Cornwell, Stephen "Redbone" Barnett, Haywood Lee and Tracy Armer.

JIM ANDREWS

Grid

continued from page 1

of miles away — as we saw on Aug. 14.”

So what's the solution?

Van Wardlaw, Vice President of Electric System Operations, says it is imperative that transmission and generation planning and operations are done in complete harmony.

“Regardless of where the analyses actually take place, we need to make sure power plants and transmission lines are viewed as a single system,” Wardlaw says.

Boston says the nation needs to build more lines and flesh out technologies that will allow power to flow more freely across

long distances, while at the same time ensuring that problems don't spread too far from where they originate.

“The grid has been taking it on the chin lately,” he says. “But the truth is, it's been pressed into unconventional service — like asking an Olympic sprinter to convert to running long marathons.” — IAN McLEOD

Vehicle headlights shine through the darkness in Manhattan during the Northeast Blackout of Aug. 14. This photograph was taken from the Brooklyn Bridge by Craig Colthorp of TVA partner Atmosphere Pictures in Knoxville.



CRAIG COLTHORP

What TVA did when lights went out in Northeast...

Fortunately, the Tennessee Valley was not affected devastatingly by the Aug. 14 blackout in the Northeastern United States and Southern Ontario.

However, TVA's generators and transmission system sensed the event, and automatic and manual operator actions were necessary to ensure reliable service was maintained in the Valley.

“Our personnel worked through the night to return a key transmission line to service in East Tennessee to ensure that TVA's system was as strong as possible after the Northeast outages,” says Van Wardlaw, Vice President of Electric System Operations.

“Transmission systems in the Eastern United States and Canada are linked into one large grid, and problems anywhere on the grid can affect systems hundreds of miles away.

“Whenever there's a sudden loss of demand on the system — such as when a power line fails and customers are separated from the grid — generators immediately must be brought into balance with that suddenly reduced demand, or the result can be additional cascading outages and major damage to the generators.”

“TVA system operators responded properly, and our customers were not adversely impacted,” Wardlaw says.

“In the past seven years, TVA has built 986 miles of new transmission line and 204 new power-delivery points to strengthen the grid in the seven-state Tennessee Valley region,” he says.

“TVA also is pursuing a leadership role in applying the latest advances in technology and material science to transmission problems, including power lines that can carry more electricity, devices that can protect voltage, and switches that react instantly to problems on the grid.”

— IAN McLEOD

(Next month in Inside TVA, the “Understanding How TVA Works” series will look at how the power system operates.)

The Northeast BLACKOUT

Investigators tap TVA technical expertise

TVA provided several transmission technical experts to national committees and teams investigating the blackout that affected the Northeastern United States and Southern Ontario.

Terry Boston, Executive Vice President of Transmission/Power Supply, was placed on the steering group overseeing the North American Electric Reliability Council's investigative team. The team, made up of transmission experts from around the nation, is

examining the sequence of events that led to the largest outage in North American history.

“TVA is fortunate to have a wealth of technical expertise, and we are pleased to make key engineering staff members available to assist the national effort to understand the blackout and prevent a recurrence,” Chairman Glenn McCullough says.

In addition to Boston, three other TVA employees were assigned to investigative teams.

Tim Ponseti, General Manager of Transmission Policy in TPS, reported to the New York ISO, to

serve as an independent observer for its internal investigation of the blackout.

Jim Whitehead, Manager of Transmission Planning in Electric System Projects, is providing technical expertise to the Department of Energy in Washington, D.C.

Gary Bullock, Chief Systems Engineer in Electric System Operations, is providing technical expertise to the NERC command center in Princeton, N.J. This team is evaluating data from utilities to validate what happened and the response by utilities.

In addition to providing assistance at the national level, Boston is sponsoring two internal TVA teams established to review lessons learned from the blackout that can be applied at TVA.

“Because of the interconnected nature of the electric grid, it is extremely difficult to be totally protected from events that happen elsewhere on the system,” Boston says. “Our goal is to ensure that we've done everything humanly possible to prevent an outage from originating on the TVA system.”

— MYRA IRELAND

Clinton Utilities Board, TVA to test flow communications

Clinton (Tenn.) Utilities Board will work with TVA's Electric System Operations and Transmission/Power Supply staffs to test a new concept in power-system communications.

CUB and TVA will make available to each other real-time data through their SCADA systems in a shared arrangement that will improve operations for both.

CUB will be able to observe power flows into its system and will have continuous status information on its 69-kV system.

TVA will have access to CUB's data, which will improve response time during interruptions and will allow TVA to observe the response in real-time of distributor-served loads that use TVA's interruptible products.

Peak performance sets record

TVA set a record last month by meeting a power demand in excess of 28,000 megawatts for five consecutive days and seven consecutive workdays.

Until the week of Aug. 18-22, the system load had exceeded 28,000 MW for no more than two days in a row. That happened four times — Aug. 12-13, 1999; Aug. 16-17, 2000 (the all-time summer peak of 29,344 MW following a peak of 28,882 the previous day); Aug. 21-22, 2002; and Jan. 23-24, 2003 (the all-time winter peak of 29,866 MW after a peak of 29,803 the day before).

The record-setting span included the following demands:

Aug. 18 — 28,048 MW. Aug. 19 — 28,106 MW. Aug. 20 — 28,128 MW. Aug. 21 — 28,325 MW. Aug. 22 — 28,310 MW. Aug. 25 — 28,214 MW. Aug. 26 — 28,533 MW.

News

PSOP in sync with industry response to blackout

These recent events reinforced TVA's decision to launch its Power System Optimization Project, to keep a closer eye on the transmission system:

The Northeast BLACKOUT

Item: The Electric Power Research Institute, in its "framework" study for the grid of the future, calls for a new "mega-infrastructure of real-time information and power exchange."

Item: The North American Electric Reliability Council's blackout investigation team asks utilities in the Northeast for records of their operational data for Aug. 14 time-stamped to the millisecond.

Item: The Midwest Independent Transmission System Operator announces that it is increasing monitoring and "visibility" of the FirstEnergy system in Northern Ohio, which some industry-watchers believe was the key link in the chain of cascading outages on Aug. 14.

Electric utilities have always generated vast amounts of data, but today the industry is awakening to the fact that — to be of use in an era of competition and increasing stress on the grid — power-system data must be collected from more locations and be more accurate and more timely than ever before.

"TVA has recognized that data streams showing the condition of the system must not only be fast, they must be virtually instantaneous," says Ike Zeringue, President & Chief Operating Officer. "Fortunately, we have a new program in the pipeline that will allow us to observe key conditions on the system in real time and with improved precision."

The Power System Optimization Project, begun earlier this year, will provide a single, authoritative

source of real-time generation, transmission and customer data integrated onto a common platform.

While PSOP's economic value — helping TVA's generators and transmission system operate closer to optimum levels — has been widely noted, its abilities to protect system reliability took on new importance in the wake of the Aug. 14 blackout.

"A common theme in theories about the cause of the blackout concerns grid operators' ability to see problems developing in real time and to take prompt action to correct them," says Joe Gracia, PSOP Project Office Manager.

"PSOP will give us a vital tool for observing and analyzing conditions on the TVA system and a means of responding to situations which could result in such disasters."

Progress is moving rapidly with PSOP, Gracia says. Here are some recent milestones:

- Pilot projects are under way at Johnsonville and Kingston fossil plants to install real-time generator-metering equipment during planned outages.
- New metering equipment has been installed at large customer facilities such as Nis-



Real-time generator-monitoring equipment such as this is being installed here at Johnsonville Fossil Plant and also at Kingston Fossil Plant.

san, Westlake and Smurfit-Stone.

- Several real-time metering improvements at connections with neighboring transmission systems on the southern and western areas of the system are being engineered.

- New remote telemetry units are being installed at various locations to provide greater visibility to the TVA transmission system.

"We started this effort before the blackout of Aug. 14 [see the April 2003 *Inside TVA* online at www.tva.com]," says Jacinda Woodward, TPS Senior Advisor and PSOP Management Sponsor. "And PSOP will help TVA stay at the forefront of changes the industry is making to help prevent a recurrence." — IAN McLEOD

Legislative Update

Energy bills go to committee to reconcile differences



Congress reconvened last week, with the U.S. Senate's and the U.S. House of Representatives' versions of the Energy Bill moving

into conference committee.

That became possible when the Senate on July 31 ended discussion of its 2002 Energy Bill and passed its 2002 version.

Here is an outlook showing some of the key similarities and differences in the two versions of the bill that conference committee members will mold into one bill for full House and Senate vote:

ISSUE — FERC-Lite. Provisions concerning open-access transmission rights.

HOUSE — TVA and other nonjurisdictionals would be subject to Federal Energy Regulatory Commission transmission-service oversight to assure that nonjurisdictionals provide transmission service to others at comparable rates and on comparable terms and conditions to those that apply when they provide transmission service to themselves.

ISSUE — Federal RTO participation.

HOUSE — Authorizes federal transmitting utilities such as TVA to voluntarily join regional transmission organizations — but only in a manner consistent with their statutory obligations and limitations. TVA Board would decide whether TVA would participate voluntarily.

ISSUE — Interstate transmission-line siting.

HOUSE — Would establish a consolidated process overseen by Secretary of Energy for National Environmental Policy Act environmental reviews.

ISSUE — Establishment of Electric Reliability Organization.

HOUSE — Contains longstanding proposal to transform current electric-power industry's "self-policing" reliability regime under North American Electric Reliability Council with a new federal regulatory body — basically by chartering NERC and giving it regulatory authority under general oversight of FERC.

ISSUE — Clean-coal technologies.

HOUSE — No provision in House bill.

ISSUE — Nuclear (Price Anderson Reauthorization)

HOUSE — Extends nuclear insurance plan until 2017 both for Nuclear Regulatory Commission licensees (mainly nuclear power plants) and Department of Energy contractors.

SENATE — Differs from House Bill in that terms and conditions for transmission service provided to others would be required to be comparable to those FERC requires of investor-owned systems. This difference is strongly opposed by American Public Power Association and National Rural Electric Cooperative Association.

SENATE — No provision in Senate bill.

SENATE — No provision in Senate bill.

SENATE — Contains essentially same provision as House bill.

SENATE — TVA would be permitted to get credits against its annual payments to U.S. Treasury for investments in qualified clean-coal technologies.

SENATE — Extends plan through 2012 for NRC licensees and nonprofit educational institutions. Indemnity of DOE contractors is extended indefinitely.

(For an expanded outlook, see the "OnlineExtra" version of this feature on page 14)

Water Quantity: Making sure there's enough for everyone

Management of river system vital to Valley economy

From River Operations' offices on the Knoxville West Tower's 10th floor, Gene Gibson can see the Tennessee River winding westward past the University of Tennessee.

As Manager of Water Supply & Special Projects, Gibson views the river from another distinctive perspective, as well, in terms of the importance of water quantity to the fiscal and physical health of the Tennessee Valley and to the TVA power system.

"Like TVA's low-cost, reliable power, the Valley's plentiful supply of water is essential for economic growth in this region," he says. "Many industries would not and could not be here, if this valuable resource wasn't present."

Of similar significance, about 4 million people in the TVA service area depend on the river system for their water supply. And 62 of the distributors of TVA power also are in the

water-distribution business, so they rely on TVA's integrated system for power and water supply.

"It's also worth noting that TVA manages the river system across state boundaries, so that TVA and the system serve as a unifier for the region," Gibson says.

And then there's the matter of water's worth in power production, River Operations Senior Vice President Janet Herrin says.

"While the river system is managed to minimize flood risks and to provide for navigation, recreation and improved water quality, the management of water quantity is essential to the operation of TVA's power system," she says.

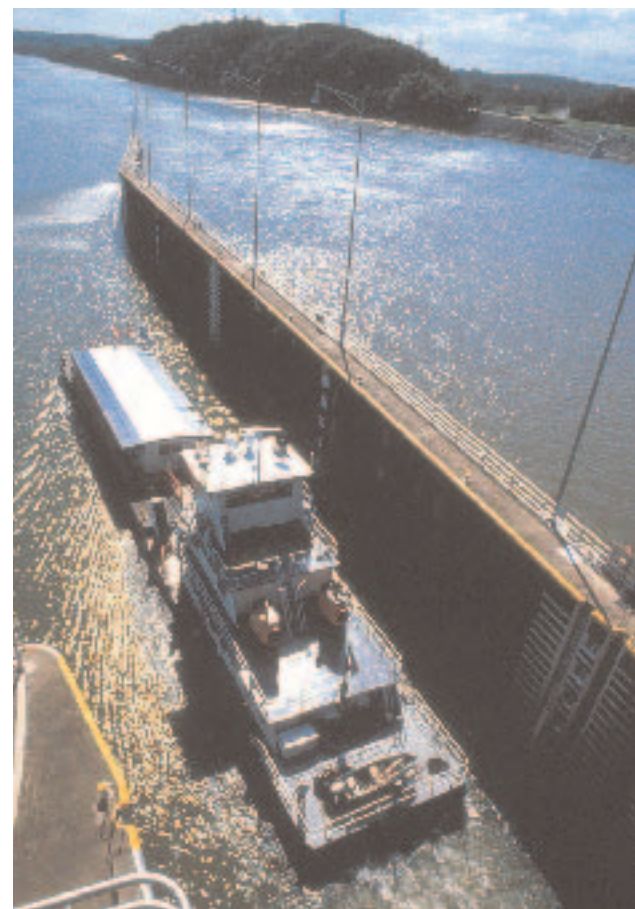
— JIM ANDREWS

Perhaps the most obvious sign of the river system's influence on the economy is the continuous traffic of freight-bearing barges such as this one, locking through at Nickajack Dam.



ROBERT KOLLAR

Gene Gibson (right) talks with Wayne Loveday, Knoxville Utilities Board Director of Plant Operations & Collection Systems, at KUB's water-treatment plant. KUB is one of 62 distributors of TVA power that also distribute water to their customers.



CLETUS MITCHELL

It takes a lot of intakes . . .

Some 800 surface-water intakes throughout the Tennessee River system draw water for use by industries, municipalities, TVA fossil and nuclear plants and other users.

"Part of TVA's job is to make sure all those intakes remain covered at all times with enough water to meet any and all requirements," says Gene Gibson, Manager of Water Supply & Special Projects in River Operations.

Typically, intakes extend out into the river, streams or reservoirs and are located at various elevations.

The water is pumped from the river system to process chemicals in Kingsport, to cool nuclear reactors at Sequoyah, to irrigate crops in North Alabama, to provide drinking water in Knoxville, to fill backyard pools in Paducah and for many other needs.

"Large water-intensive operations processing chemicals and paper are the biggest industrial users of the Ten-

nessee River system," Gibson says.

If an intake starts to be exposed because of water levels dropping below normal minimum elevations — that can happen during periods of low flow or during drought conditions — TVA's response is swift.

"We either hold back more water in that reservoir or release more from the reservoir or reservoirs upstream, or both," Gibson says.

Much of the water used residentially and commercially is returned to the river system at about 300 discharge points and reused again and again for multiple purposes as it moves along the Tennessee's 652 meandering miles.

"These discharges typically have diffusers to help minimize environmental impacts," Gibson says. "Also, much of the water is treated — such as at waste-treatment plants — before being returned."

— JIM ANDREWS

Feature

Power flow heavily dependent on water flow

As important as water quantity is to economics and lifestyles of the Tennessee Valley, it is especially vital to the economics of TVA's power operations.

"TVA depends on the integrated operation of the river and power systems to maximize overall value to the region," says Janet Herrin, Senior Vice President of River Operations.

"Most people think the value of water to TVA comes primarily from the 10 percent of power generated by the hydro plants. While it's true hydro generation is a low-cost source of electricity, a closer look reveals the river system also has the potential to impact the delivered cost of power for our customers in a number of other ways."

One of those is river scheduling.

"Along with meeting environmental and other commitments, the hydro system is scheduled and used for peaking power, when the value of power typically is at its highest," Herrin says.

"Having this peaking-power flexibility available from the river system is extremely important to the efficient operation of the power system."

Besides normal hydro generation and peak-power benefits,

the river system provides cooling water to six of TVA's coal-fired plants and all three nuclear plants, which together provided about 70-75 percent of TVA's generation last year.

"Huge quantities of water flow through the plants," Herrin says. "Without the river system as a source of cooling water, the delivered cost of power could be impacted significantly because of plant shutdowns, deratings, external power purchases or plant modifications that would be required."

TVA's hydro units also are used for a number of ancillary services to ensure power-system reliability.

"Because of the rapid response time of hydro units, they are used for load following — the process of adjusting generation to meet demand — and for system stabilization," Herrin says.

"Without the ability of the hydro system to provide overall power-system reliability, TVA would have to turn to more expensive means that would add a significant

amount annually to the delivered cost of power.

"The bottom line is that how we manage the water resources from a quantity standpoint has the potential to greatly impact all 8.3 million or so TVA customers in the power service area, not just those living in the watershed." — JIM ANDREWS



Watts Bar Nuclear Plant and eight other TVA nuclear and coal-fired plants depend on cooling water from the river system to operate safely.



STEVE CORUM



CLETUS MITCHELL

ABOVE: Industries such as the Cemex cement plant on the South Holston River rely heavily on river water in their operations. BELOW: Fort Loudoun Reservoir offers a pleasant way to spend a day.

ROS to analyze public input

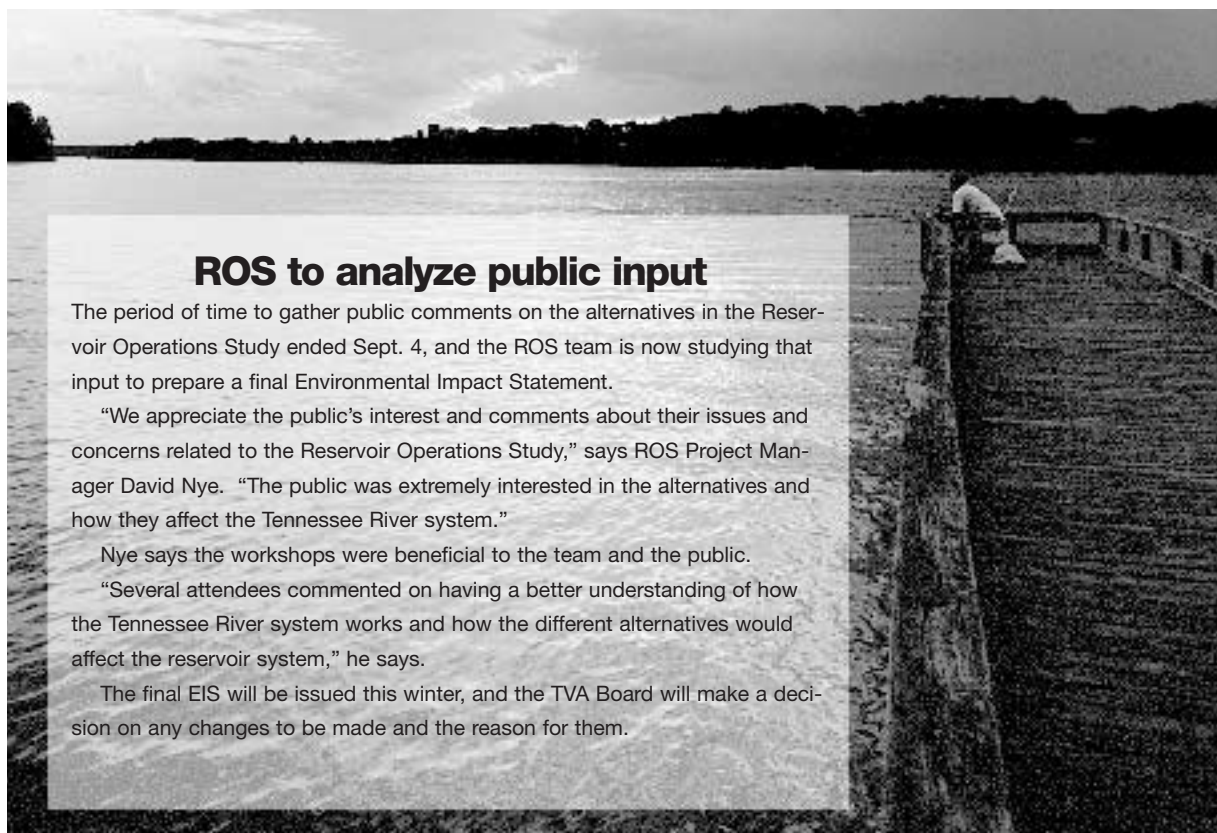
The period of time to gather public comments on the alternatives in the Reservoir Operations Study ended Sept. 4, and the ROS team is now studying that input to prepare a final Environmental Impact Statement.

"We appreciate the public's interest and comments about their issues and concerns related to the Reservoir Operations Study," says ROS Project Manager David Nye. "The public was extremely interested in the alternatives and how they affect the Tennessee River system."

Nye says the workshops were beneficial to the team and the public.

"Several attendees commented on having a better understanding of how the Tennessee River system works and how the different alternatives would affect the reservoir system," he says.

The final EIS will be issued this winter, and the TVA Board will make a decision on any changes to be made and the reason for them.



CHRISTOPHER MITCHELL

TVA expertise known far, wide

Gene Gibson has been on international assignments for River System Operations & Environment in the past, and he says TVA is probably better known in other countries for its integrated resource management than it is in the United States.

"That's why we've been asked to share our experience and expertise in places such as China, where the Yellow River was running dry in some places, and where they experienced heavy flooding on the Yangtze," Gibson says.

"It's amazing what TVA does in the Tennessee Valley in managing both those extremes. The millions of dollars saved in avoiding floods gets a lot of emphasis. However, people take for granted the fact that we don't have to ration water here as others do elsewhere, during periods of drought."

TVA-wide innovation, standardization, saving \$\$\$

Cost savings, fewer inventories and decreased lead times for product orders — how does TVA achieve all three benefits? Through its Materials Standardization Program, which in four years has produced about \$6.5 million in cost savings.

Cristy DiMartino says MSP is a “win-win-win” situation for end users, TVA and suppliers.

“Standardizing materials has helped TVA reduce its delivered cost of power,” says DiMartino, Materials Standardization Team Leader and a Senior Project Manager in Procurement. “We’re able to order, receive and put various products and services into use more quickly, while attaining lower costs and higher quality.”

She says previous TVA standardiza-



expenses.

“Materials standardization allows for commonly purchased items to be used at locations across TVA, thereby reducing overall costs, ensuring product and service quality and availability, and improving efficiency in materials-handling and warehouse stock.”

The Materials Standardization Team — formed in June 1999 — is made up of TVA’s construction and design partners, suppliers and representatives from each TVA business unit.

“Before the MSP was established,

tion attempts didn’t have sufficient support to be successful, but the threat of industry deregulation intensified the need to lower operating

TVA had many different kinds of the same products,” DiMartino says. “More than 450,000 items were listed in TVA’s catalog, resulting in frequent product duplication and incorrect information.

“This meant costs were higher, because there were lower-volume orders for each of the different brands. Bulk orders of a single brand are more cost-efficient and save warehouse space.”

DiMartino’s team was one of six winning a TVA Environmental Excellence Award in 2002. It was cited for its commitment to environmental awareness through standardization and the promotion of safe, environmentally preferable products.

“The team selects products and suppliers based upon such key envi-

ronmental considerations as product disposability, ability to recover material content and biodegradability,” DiMartino says. “Health and safety requirements also must be met.”

For more information about the team and the program, click on the “Organizations” link on TVA’s internal Web site and go to Procurement’s home page. Click on “Information & Resources — Standardization.”

— SUZANNE COTTRELL

This is the third in a series of articles on innovative initiatives and solutions created by employees or teams “thinking outside the box.” TVA recently nominated the Materials Standardization Program, among other projects, for the Innovation in Government Award.



No need for Squincher here — Paradise Fossil Plant Nurse Darlene Adkisson removes a foreign particle from the eye of Machinist Joey Johnson.

LARRY AHERTON

New TVA-wide thirst-quencher ‘sqwinches’ pain, cuts costs

It’s a matter of control. Controlling muscle cramps. Controlling pesky pests. Controlling TVA costs.

Those are the results of a couple of the newest additions to TVA’s Materials Standardization Program.

On the way to the hospital in April 2002 with a maintenance worker, Jeff McPherson, who was experiencing leg cramps, Paradise Fossil Plant Nurse Darlene Adkisson gave him a sample of a new brand of thirst-quencher called “Squincher.”

By the time they reached the hospital about half an hour later, Jeff McPherson’s leg cramps were gone.

“We performed taste tests after the nurse reported it worked better than the drink we’d been using in such situations,” says Cristy DiMartino, leader of TVA’s Materials Standardization Team.

“After we determined the new drink replenishes electrolytes faster and allows workers to return to work sooner, it was added to the list of items standardized for TVA-wide use.”

She says Squincher contains less sodium than the previous drink, and employees say it tastes better.

“It also has more potassium, which helps control such problems as leg cramps.”

Squincher is about 18-percent less expensive than previous drinks purchased by TVA.

Most TVA plants order thousands of cases of thirst-quencher a year, so the savings to TVA will really add up



over time, DiMartino says.

For example, TVA Nuclear will be able to save about \$11,000 each year.

Along with other standardized items, Squincher will be available online through the Company Store’s site on TVA’s Internal Web site.

What’s best for pests?

The Materials Standardization Team also has picked a single pest-controller for TVA.

“Previously, TVA had 11 different contracts for pest control at various locations,” DiMartino says. “After gathering information from each site, we accepted competitive bids from eight companies.”

Following extensive evaluation, Orkin was selected by the TVA-wide Pest Control Standardization Team, headed by Contract Manager Matt Blakely, to control pests for all of TVA.

“One environmental factor was that instead of using chemicals to eliminate pests, Orkin is one of the companies that use baiting stations and glue traps,” DiMartino says. “TVA’s Environmental Policy Group is working closely with Orkin in support of TVA’s commitment to environmental stewardship.”

TVA employees, retirees and partners will also benefit from a 15-percent discount available to them as a result of the new contract. More information is being posted on the employee benefits pages of TVA’s internal Web site.

— SUZANNE COTTRELL

Public Power Week also has roots in tree-planting

Oct. 5-11 is Public Power Week, and the American Public Power Association is encouraging utilities around the country to promote awareness in their community of the benefits they provide.

One benefit many public-power utilities offer is APPA’s TREE POWER program, a nationwide effort to plant trees for their customers.

The program is multifaceted. Trees are planted “in the right place” to help educate consumers about the importance of tree-trimming. Tree-planting helps utilities strengthen community-relations ties. Trees may reduce carbon-dioxide emissions, and they also provide shade and wind-breaks, reducing consumer energy costs.

More information about Public Power Week and TREE Power is available online at www.appanet.org/programs/ppweek/index.cfm.

News

Helping the right employees get the right training

Caring for the environment and complying with environmental regulations touch every corner of TVA. Ron Davis and Dennis Mynatt are part of the teams that make sure employees get the environmental training they need to do their jobs right.

"The COO Training Peer Team and the Environmental Integration Peer Team coordinate environmental requirements and training needs for TVA," says Dennis Mynatt, Manager of Environmental Training in River System Operations & Environment. "The teams are made up of representatives from TVA organizations."

Mynatt helps the Environmental Training Sub-Peer Team, sponsored by the Technical Training Peer Team, define the environmental training needs for all business units. Representatives from RSO&E, Transmission/Power Supply, Administration, the Fossil Power Group, Customer Service & Marketing, Communications & Government Relations, TVA Nuclear and Power Resources & Operations Planning bring their training needs to the table.

Davis, an Environmental Manager in RSO&E, is a member of the Environmental Integration Peer Team and the Environmental Training Sub-Peer Team.

"We are the voice for our Strategic Business Unit," he says. "We look at what's common across TVA for environmental-training needs. And we communicate any training changes to the employees in their organizations."

In 2000, the Environmental Training and the Safety Training Sub-Peer Teams evaluated and standardized the courses required and eliminated redundant ones, saving TVA several million dollars.

"We looked at the 457 courses being offered several years ago and determined we needed about 60 TVA-wide courses and 25 business-unit-specific courses."

The sub-peer team helped develop the Environmental Compliance & Awareness Training Assessment to more systematically determine the training needs of all employees.

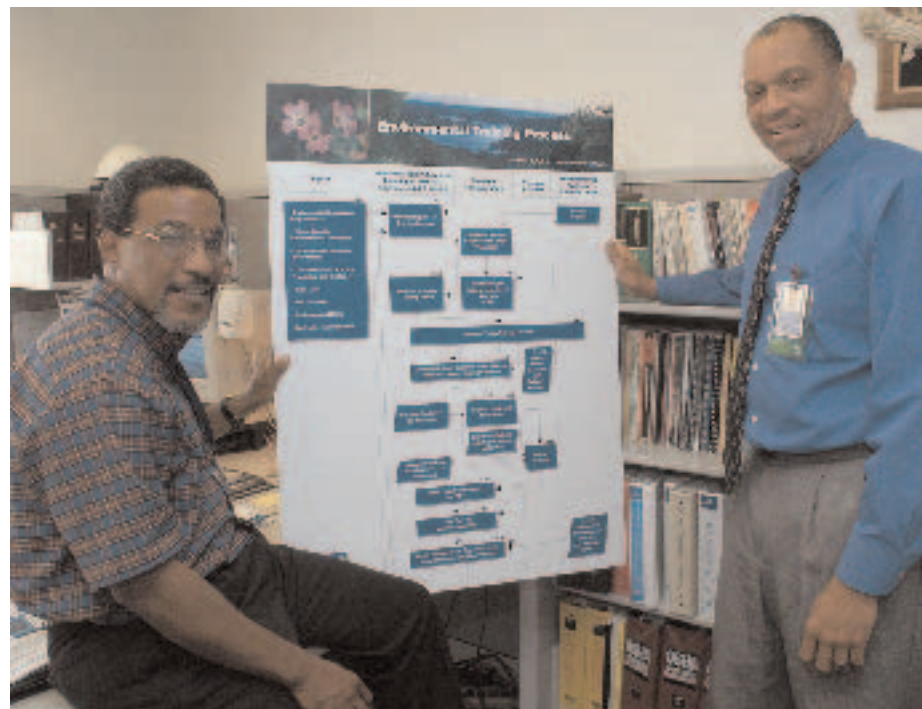
"ECATA identifies environmen-

tal-training needs, and it helps us track and report how well we're getting the needed training completed," Davis says.

"This got us away from 'seat of our britches' guessing — what

employees think they need — to focus more on a real needs-based process. This way, we're sure we won't have employees doing jobs they aren't trained to do."

— NANCY CANN



Dennis Mynatt (left) and Ron Davis work together to ensure environmental-training success.

CLETUS MITCHELL

Eight TVA/COO Peer Teams seek solutions for better business

The charge:

- Standardize like business processes.
- Implement standardized processes.
- Integrate crossfunctionally.
- Identify best practices.
- Implement business improvements.
- Provide value/benefit to TVA's bottom line.

Members of the eight TVA/COO Peer Teams are doing all that and more.

"We've asked the Peer Teams to make tough decisions necessary to guide all TVA organizations," says Raul Baron, General Manager of Process Methods & Improvement in Performance Initiatives.

The teams represent the major business functional areas — Administration, Business, Engineering, Environmental, Human Resources, Information Technology, Training and Work Management. Sub-Peer Teams are formed when specific tasks need to be performed, and they report to the Peer Teams. Each Peer Team has an executive sponsor and chairperson.

A Process Methods Team sponsored by PI Vice President Anda Ray and chaired by Baron guides and reinforces the integration of Peer Team actions and activities, and it makes recommendations to the COO Leadership Team. — NANCY CANN

Keeping current on training — a (peer) team effort

The TVA Environmental Integration Peer Team, sponsored by River System Operations & Environment Executive Vice President Kate Jackson and chaired by Environmental Policy & Planning Vice President John Shipp, is made up of representatives from all Strategic Business Units.

"The peer team's efforts are essential to ensure all SBUs are implementing the Environmental Management System, focusing on environmental best practices that help lessen the impacts of TVA operations and encouraging communications across all organizations," Jackson says.

Shipp says providing an easier way to fulfill training needs and to document completed training has been a focus of the team, as well.

"Through the help of the corporate staff of TVA University and other groups, we have realized a significant savings for TVA and have provided an easier way for employees and managers to identify their training needs," he says.

"And we are providing more environmental training courses online, making them more convenient for employees."

— NANCY CANN

TVA Watershed Teams mark Public Lands Day on calendar

Several TVA Watershed Teams are planning special projects for National Public Lands Day, Saturday, Sept. 20.

Here is a list of scheduled events, reported to *Inside TVA*:



• Cherokee/Douglas Watershed Team and John Sevier Fossil Plant will conduct an environmental-education program on stream ecology for local schoolchildren, near Rogersville, Tenn.

• Chickamauga/Nickajack Watershed Team will work with Ducks Unlimited to improve wood-duck habitat near Decatur, Tenn.

• Guntersville Watershed Team will join with the Boy Scouts of America and other volunteers to establish and make improvements to the Buck Island Hiking Trail in Guntersville, Ala.

• Hiwassee Watershed Team will be involved in six litter-

cleanup projects in the watershed.

• Melton Hill Watershed Team will partner with the Tennessee Citizens for Wilderness Planning to remove exotic and invasive plants and to plant native species at TVA's Worthington Cemetery Cedar Barrens Ecological Study Area in Oak Ridge.

• Upper Holston Watershed Team will join conservation organizations in a stream cleanup along the Doe River at Roan Mountain, Tenn, and it also will participate in the Regional Household Hazardous Waste Collection in Kingsport, Tenn.

• Wheeler Watershed Team will partner with the Flint River Conservation Association in a cleanup effort on the Flint River near Huntsville, Ala. Team members also will join the Friends of Short Springs Natural Area to work on site improvements at the natural area near Tullahoma, Tenn., and will work with local volunteers to improve canoe access sites and to clean up litter along the Elk River near Winchester, Tenn.

ACROSS TVA

Across TVA highlights news, achievements and activities of TVA organizations. E-mail submissions to Suzanne Cottrell on Microsoft Outlook or send them to her at ET 6A-K. Digital photographs can be e-mailed to the Employee Communications Photos mailbox in Microsoft Outlook.

Bull Run Fossil Plant — Bull Run received an Exemplary Rating from TVA's Environmental Audit Program and was designated the Most Energy Efficient Coal-Fired Power Plant in the Nation in 2001 by Electric Light & Power magazine. EL&P began including TVA in its industry comparisons in 1995, and since that time Bull Run has ranked among the nation's top 10 plants every year. A plantwide employee recognition event was held this summer to acknowledge these achievements.

Chattanooga — TVA's Public Power Institute hosted a meeting in Chattanooga with National Air & Space Administration officials from the Stennis Center in Mississippi. The group reviewed opportunities for using NASA remote-sensing and satellite imagery data in TVA operations, including water quality, air quality and monitoring, transmission construction and economic development.

Colbert Fossil Plant — Colbert's Partners In Education program has adopted Cherokee High School as its third partner school, joining Cherokee Middle School and Cherokee Elementary School.

Memphis — Transmission/Power Supply provided a helicopter to help assess the damage and a line crew to assist in restoration of high-voltage lines for Memphis Light Gas & Water, which suffered damages estimated in excess of \$21 million in a severe windstorm July 22.



Fort Loudoun Hydro Plant — Chairman Glenn McCullough talks with employees from TVA facilities in the area during a Town Hall Meeting at Fort Loudoun Aug. 19.

Mississippi — River System Operations & Environment staff members met with officials from the Mississippi Department of Environmental Quality to discuss potential projects in the Mississippi portion of the Tennessee Valley • Cogentrix began commercial operation of its 900-megawatt combined-cycle facility in Southaven, Miss., on July 30. The facility is connected to TVA (a 500-kV line) and Entergy (a 230-kV line).

North Georgia — Customer Service personnel, through the Comprehensive Services Program, responded to an urgent call for assistance from North Georgia Electric Membership Corp. at a Shaw Industry plant. The TVA workers identified the source of the computer problem and made recommendations that eliminated the need to disrupt plant operations.

Northeast Tennessee — Nearly 100 teachers from Northeast Tennessee attended learning workshops sponsored by the Appalachian Resource Conservation & Development Council. The teachers learned about TVA's renewable-energies program and received comprehensive lesson plans on energy consumption, solar power, wind power and land-fill-gas power.

Paradise Fossil Plant — The U.S. Department of Energy-National Energy Technology Laboratory has selected for funding a project that will help TVA and the utility industry better understand and cost-effectively manage metals-treatment technologies, as regulatory restrictions increase on metals discharges in high-volume ash-pond discharges. The system will be installed at Paradise in fiscal year 2004.

Sequoyah Nuclear Plant — Modifications to the Sequoyah site in preparation for Dry Cask loading, which began in February 2002, are scheduled to be completed Sept. 15. About 100,000 workhours were devoted to this project, which was completed without injury.

Around the industry

This feature provides brief highlights of events in the electric-utility industry. More information is available in Power Bolts, accessible through TVA Today.

Southern Co. exceeds projections — Southern Co., the largest U.S. utility owner by market value, said profit from its wholesale power business will be 11-percent more than projected this year because of higher prices. Southern has been able to capitalize on rising power prices because many of its generators are fired by low-cost coal. Southern supplies electricity in a 120,000-square-mile service territory in Georgia, Alabama, Mississippi and Florida. (*Bloomberg News*)

System's Crash Was Predicted — "The question is not whether, but when, the next major failure of the grid will occur," the North American Electric Reliability Council warned last year. "The nation is at ... a crisis stage with respect to reliability of transmission grids." It calculated that \$56 billion was needed to upgrade the nation's grids, but only \$35 billion was likely to be invested. The recent Northeast power outage will undoubtedly focus attention on the infrastructure, the need for investment in power grid and the best ways to attract investment in the grid," said Meribel Ayres, president of the Lighthouse Energy Group, a power-industry consulting firm. (*The Washington Post*)

Duke Energy sells 25-percent ownership interest in Indiana facility — Duke Energy will sell 25 percent in undivided interest in its Duke Energy Vermillion to Wabash Valley Power Association Inc., a generation-and-transmission cooperative. A Duke spokeswoman said the deals allowed for Duke to shed some of its expenses and risks. (*Dow Jones*)

Layoffs expected as Duke seeks cost cuts — Duke Energy Corp. will likely lay off more workers in the next year and cut other costs, as the Charlotte company expects the energy sector to stay sluggish until at least 2005. Analysts don't expect the wholesale-energy sector — where Duke sells power to other utilities and large industrial users at unregulated prices — to bounce back until then. Duke is one of several energy companies laying off workers or cutting costs: Entergy Corp., Exelon Corp. and Reliant Resources Inc. have each announced layoffs of between 650 and 1,900 jobs over the next four years. (*The Charlotte Observer*)



Colbert Fossil Plant — From left, Chuan-Chiang Chen, Technical Services Analyst Jackie Kay, Plant Engineering Principal Systems Engineer Steve Merry and Technical Services Analyst Lawrence Bennett are involved in using an infrared camera to measure the surface temperature of plant equipment. Chen, a Ph.D. and assistant professor at Tuskegee University's Mechanical Engineering Department, visited Colbert this summer as part of a national program called "Advancing Minorities' Interest in Engineering," which is a partnership between corporations and schools with high minority enrollment. Chen's expertise is in vibration analysis and acoustics, and he worked with the Maintenance Optimization Program.

News/Benefits

Integrated Performance Management to begin 3rd year

TVA's Integrated Performance Management process is beginning its third year of helping employees and managers gain a better understanding of how their jobs support TVA's Critical Success Factors.

"IPM is an ongoing process," says Carey Peters, Program Manager of Performance Management in Compensation & Human Resources Planning. "It involves employees and their manager — or their principal-level employee in some cases for employees represented by the Engineering Association — establishing performance objectives and participating in coaching and feedback, one of TVA's Winning Behaviors.

"It's used with Manager & Specialist and Excluded-Schedule employees and employees represented by the EA and the Law Enforcement Employees Association. Through this process, employee performance now is evaluated on a regular basis."

Negotiated agreements are followed for EA- and LEEA-represented employees. Other represented employees support Winning Performance through participation in their current negotiated

annual service-review process.

"Providing coaching and feedback are among the most important things managers and Principal-Level Employees can do," Peters says.

John Long, Human Resources Executive Vice President, says the IPM process highlights the importance of performance reviews in contributing to the overall success of TVA.

"It's important that employees and their managers work together to set performance objectives and then use them to direct their work throughout the year," Long says. "These objectives should have a line of sight to Business Unit and Strategic Business Unit performance plans and goals.

"IPM and Winning Performance go hand in hand. IPM focuses on individual performance, while WP focuses on the performance of the company as a whole."

M&S and Excluded-Schedule employees are currently under a pay-for-performance plan. EA-represented employees also are eligible now for a negotiated pay award based on their performance for the past fiscal year. — JIM ANDREWS

Performance evaluations begin Oct. 6

The tasks in the following schedule are for Manager & Specialist employees, Excluded-Schedule employees and employees represented by the Engineering Association and the Law Enforcement Employees Association.

Oct. 6-24 — Using Manager SelfService on TVA's internal Web site, managers evaluate FY '03 performance and make pay-award decisions for their employees.

Oct. 27-Nov. 7 — Organizational review and approval of performance ratings and pay awards.

Nov. 10-14 — Winning Performance Team Incentive Plan payout for FY '03.

Nov. 13-28 — After receiving organizational approval, managers meet with their employees to discuss FY '03 performance ratings, comments and pay decisions, and to develop FY '04 performance objectives.

Nov. 13-Dec. 31 — Employees enter their FY '04 performance objectives, using Employee SelfService.

Nov. 13-Jan. 31 — Managers approve FY '04 performance objectives, using Manager SelfService.

Dec. 1 — Annual compensation awards/performance pay implemented.

Principal-level employees (EA bargaining-unit supervisors) have initial responsibility for evaluating performance (Oct. 6-24) and developing performance objectives with their employees (Nov. 13-28)

Non-Fidelity mutual funds subject to short-term fees Oct. 1

Retirement Services says Fidelity Investments has announced a list of non-Fidelity mutual funds that will be subject to short-term redemption fees starting Oct. 1.

Any shares of these funds purchased by participants in 401(k) plans before Oct. 1 will not be subject to short-term trading fees. Shares in the funds purchased on or after Oct. 1 will be subject to the fees.

If these shares are sold before the indicated minimum holding period expires, the short-term redemption fees will be charged.

Employees can access the list on the Retirement Services section of TVA's internal Web site.

Your Benefits — did you know ...

... a change took place Sept. 1 in the program that reimburses employees for the costs of most smoking-cessation aids?

Employee Benefits and Live Well recently announced the change, which will incorporate continued physician oversight after an employee has been using a smoking-cessation product for six months.

"When participating employees request reimbursement for the sixth month, we will notify them that a letter from their prescribing physician is needed before reimbursement can continue beyond six months," says Gayanne Ballinger, Employee Benefits Senior Consultant. "By doing this, we're making sure the physician is involved in the employee's efforts. If this program isn't working, maybe the physician will want to recommend a different program or product to help."

A letter from the physician will be required every three months after the initial six-month period.

Ballinger says the change is being made to help employees successfully end the smoking habit.

"We want to help them reach their nonsmoking goals quickly, so they don't get frustrated with their efforts," she says. "When an employee has been using a smoking-cessation product for a long time, that tells us the particular program or product isn't working for that individual."

The time span was determined because the manufactures of two frequently used smoking-cessation aids — Zyban and Nicotrol inhalers — recommend six-month use.

Ballinger reminds employees that free self-help materials are available through TVA's Live Well Program.

The Employee Assistance Program offers short-term, confidential counseling on coping with nicotine-addictive behaviors. And smoking-cessation information is also available through the Healthcare Assistance Program Web site at www.myaccesshealth.com. — BECKY THOMASON



STEVE CORUM

Good fences can make good neighbors

From left, Electric System Projects' Sheree Limbaugh, Shared Resources' Glen Powell, Central Laboratories Services' Lesley Blankenship and Fossil Power Group Environmental Affairs' Darlene Keller build a fence around a wetlands at the Nature Center in Chattanooga. The work was part of one of 34 Greater Chattanooga Area Combined Federal Campaign Day of Caring activities Aug. 29, involving about 350 federal employees. CFC kickoff dates announced so far include Chattanooga Sept. 9, Knoxville Sept. 18 and Muscle Shoals Sept. 29.

They're real pros — and it shows

Keith McCarley says being named a “professional of the year” at a nuclear plant is an honor and a challenge.

“Others seem to look to me more to take a leadership role now,” says McCarley, an Electrician who was named Maintenance Professional of the Year at Browns Ferry Nuclear Plant last year. “I try to plan ahead more now on the job, especially when it comes to safety. I feel more responsible for my co-workers.”

At the same time, **Emmit Goode**, a Radiochemical Lab Technician, was named Radiological/Chemistry Professional of the Year at Browns Ferry.

“I received this honor because the people I work with, my peers, think I’m a good employee,” Goode says. “That means I’m doing my job right and have the right attitude, I guess. It’s a real honor.”

McCarley’s and Goode’s counterparts at TVA’s other nuclear plants were, respectively, **Michael Isenhour** and **Alan Barringer** at



Two of TVA Nuclear's top professionals last year — Browns Ferry's Emmit Goode (left) and Keith McCarley



Michael Isenhour Alan Barringer James Buchanan Lanny Brown

Sequoyah and **James Buchanan** and **Lanny Brown** at Watts Bar.

Isenhour is a Maintenance Specialist, Barringer a Principal Chemist, Buchanan a Maintenance Mechanical Steamfitter, and Brown an Environmental Engineer.

A team of craft representatives from

each TVA nuclear site developed the maintenance professional code in 1989, making it among the first in the nuclear-power industry. Employees nominate fellow workers who exemplify the code. Then employee teams select quarterly winners, and, from those, the yearly maintenance professionals.

The Rad-Chem Professional of the Year awards were given for the second time last year at the second annual Joint Maintenance/Rad-Chem recognition ceremony. Employees are chosen from a group of quarterly winners who demonstrate high safety standards and TVA’s commitment to strategic teamwork for actions, results and seven values — integrity, respect for the individual, accountability, teamwork, innovation, continuous improvement, honest communication and flexibility

“I’m more conscientious now about what I do and how I do my job,” Goode says. “I feel like people respect and look up to me, which makes me work even harder.” — *SUZANNE COTTRELL*

Muzyn elected to TVARS Board

TVA Retirement System members last month elected Leonard Muzyn to a three-year term on the TVARS Board of Directors. The term will run from Nov. 1, 2003, to Oct. 31, 2006.

He will succeed current Board member Robert Cash, who retired earlier this year and whose term expires Oct. 31.

Muzyn, a Fuel Supply Analyst in the Fossil Power Group in Chattanooga, received 2,656 votes, or 53 percent of the 4,992 votes cast. Because he had a majority of the votes, a runoff election was not required.



Leonard Muzyn

Muzyn has an MBA in finance from the University of Tennessee, Knoxville, and a bachelor’s in electrical engineering from the University of Pittsburgh. He also has earned the designation of Chartered Financial Analyst.

He has been with TVA 13 years.

Nominations sought for ‘7th Director’ post

Among the current TVARS Board members are John Hoskins, John Long and Mark Medford, all appointed by TVA, and Robert Cash, Floyd Johnson and Gretchen Thal, all elected by the TVARS membership.

TVARS Board Chairman Lew Wallace now holds the position of the “seventh director,” selected by the other six.

Wallace has announced he will not seek reappointment to the TVARS Board when his term expires Oct. 31, and nominations for that post are being accepted through 4:45 p.m. EDT, Sept. 30.

Nomination letters containing information on the nominee’s experience and qualifications should be sent to Gretchen D. Thal, TVARS Board Director, 400 West Summit Hill Dr., ET 8B, Knoxville, TN 37902.

Putting his stamp(s) on U.S. history

When teenage stamp-collector Charles Edward Sample ordered a “First Day of Issue” George W. Norris stamp in 1961, he’d never heard of the late senator from Nebraska or of the Tennessee Valley Authority Norris “fathered.”



Charles Sample

But Sample, a Power Utilization Engineer at the Customer Service Center in Huntsville, Ala., and 16-year TVA employee,

knows a lot about both now. And reports of

Norris as part of TVA’s 70th-anniversary celebration in May sent Sample to the old shoebox housing his philatelic treasures of old.

“It was still there,” he says. “The first thing I noticed was that first-class postage was four cents then.” The envelope, postmarked July 11, 1961, features the stamp, with Norris’s portrait and an artist’s rendition of Norris Dam. Another portrait of Norris and illustration of the dam are on the face of the envelope. Among other information in print are the words “Gentle Knight of Progressive Ideals” on the stamp and “Advocate of Democratic Principles in



Action” on the envelope.

“There was no zip code then, of course,” Sample says. “And there was no street address, because the town where I lived only had one street, the state highway that ran through it.”

A 20-cent Tennessee Valley Authority stamp also was issued May 18, 1983, commemorating TVA’s 50th anniversary and featuring an artist’s depiction of Norris Dam.] — *JIM ANDREWS*



PEOPLE, PLAUDITS & PROMOTIONS



Bryant Beames

Saturn Corp. presented a plaque to **Bryant Beames** this summer in recognition of outstanding achievement in commitment to continuous improvement in the area of energy conservation. An Industrial Account Manager in

Industrial Marketing in Customer Service & Marketing, Beames has provided management expertise and engineering analysis of energy-conservation opportunities to the Saturn plant in Spring Hill, Tenn., and Corvette plant in Bowling Green, Ky. He received the award from the Saturn Energy Conservation Team for the period of January 1999-June 2003.

Resource Stewardship Foresters **Jack Muncy** and **Greg Broyles** joined others fighting wildfires in the West



Jack Muncy



Greg Broyles Mark McCreedy Garry Chappelle

last month, Muncy in Wyoming and Broyles in Idaho. Earlier this year, Muncy, Broyles, Forester **Mark McCreedy** and Energy Research & Technology Applications Computer Technician **Garry Chappelle** fought fires in Montana, and McCreedy in New Mexico, as well. TVA has a

Memorandum of Understanding with the U.S. Forest Service to provide trained, qualified personnel to help suppress wildfires.

Alice Greene won a bronze medal in the women’s 400-meter dash in this year’s National Senior Olympics in Norfolk, Va. Greene is the Program Manager, Integrated Staffing Plan in Corporate Compensation & Human Resources Planning in Knoxville. She also finished eighth in the women’s 200-meter dash in the competition.



Alice Greene

FY '04 rate increase to serve two critical needs

At its Aug. 27 meeting in Knoxville, the TVA Board heard voices of support and opposition, following detailed presentations by the Chief Financial Officer and the Executive Vice President of Customer Service & Marketing on two crucial and different issues.

The first was for additional funding for clean-air improvements at TVA fossil plants. The second was to more equitably distribute TVA's costs to serve various customer groups and to make manufacturing rates more competitive.

And then, by unanimous vote, the Board approved rate actions to fund clean-air improvements for the next 10 years and to help retain manufacturing jobs in the Tennessee Valley. Overall, the approved increase in electric revenues — the first rate hike since 1997 and only the second in 16 years — is 6.1 percent.

"We are installing the latest clean-air technology at our coal-fired plants because it is the right thing to do," Chairman Glenn McCullough said. "This 10-year environmental adjustment in our rates will help pay the \$1 million a day we are investing to do our part in providing clean air and clear skies to the people of the Valley in the 21st century."

Among some of the 19 speakers, the need for the environmental adjustment in rates was not a matter of contention. The biggest dissenting voice — that of the Tennessee Valley Public Power Association — wanted the rate increase spread over all customers, including the large manufacturers. TVPPA represents 157 distributors of TVA power.

As approved, the rate actions have the net result of an average 7.4-percent increase in wholesale residential and nonmanufacturing rates and a 2-percent decrease in wholesale rates for large manufacturers

with loads of 1 megawatt or greater. The result will be about \$365 million in additional revenue for TVA during the 2004 fiscal year, beginning Oct. 1.

In his remarks, CS&M Executive VP Mark Medford pointed to the disproportionate manner in which TVA's rates have been applied in the past, with residential rates 11-percent below the average of neighboring utilities and industrial prices 12-percent above the average of neighboring utilities.

"Manufacturing jobs have declined 10 percent in the past 10 years in the Valley," Medford said. "They have declined 8 percent in the past two years."

That has led to the loss of 100,000 manufacturing jobs between the end of 2000 and the end of 2002, he said.

"Manufacturers choose which plants to operate — and which plants to shut down — based on costs such as electricity," Medford said. "Without competitive rates for manufacturers, we lose quality jobs in our region."

Pros and cons

In his capacity as TVPPA Chairman, Chattanooga EPB President/CEO Harold DePriest led those expressing opposition to the manner in which the new rate structure is set up. Among others dissenting for various reasons at the public meeting were Herb Sanger of the Ten-

nessee Electric Cooperative Association; Tom Wheeler, General Manager of Cleveland (Tenn.) Utilities; Ronny Rowland, Manager of Prentiss County (Miss.) Electric Power Association; and Stephen Smith of the Southern Alliance for Clean Energy. Distributor executives Larry Fleming, Jimmy Williamson and Howard Brown were among those speaking in favor of the rate actions. Fleming is President & CEO of Knoxville Utilities Board, Williamson is Manager of Dyersburg (Tenn.) Electric System, and Brown is General Manager of Erwin (Tenn.) Utilities. Others backing TVA included George Godwin, Executive Director of Associated Valley Industries; Ed Bredniak, Chairman of the Tennessee Valley Industrial Committee and President & CEO of CC Metals & Alloys Inc.; Pat Miller, President of



Photos by STEVE CORUM

the Valley-Wide TVA Retirees Association; and John Bynon, Chairman of the Board of Bicentennial Volunteers Inc.

Director Skila Harris said, "Since January, we have listened to our distributor partners and revised the rate proposals in response to suggestions they have made."

"We tried to achieve a fair balance in the actions we took, recognizing our responsibility to consumers, to environmental stewardship and to economic development."

Director Bill Baxter said, "Even with the rate increase, TVA residential rates are among the lowest in the country and the region. Because electricity is a major cost for large manufacturers and because their rates are already higher than the regional average, we do not want to further disadvantage those customers." —JIM ANDREWS

OnlineExtra

Legislative Update

Energy bills go to committee to reconcile difference



Congress reconvened last week, with the U.S. Senate's and the U.S. House of Representatives' versions of the Energy Bill moving into conference committee.

That became possible when the Senate on July 31 ended discussion of its 2002 Energy Bill and passed its 2002 version.

Here is an outlook showing some of the key

similarities and differences in the two versions of the bill that conference committee members will mold into one bill for full House and Senate vote:

ISSUE — FERC-Lite. Provisions concerning open-access transmission rights.

HOUSE — TVA and other nonjurisdictionals would be subject to Federal Energy Regulatory Commission transmission-service oversight to assure that nonjurisdictionals provide transmission service to others at comparable rates and on comparable terms and conditions to those that apply when they provide transmission service to themselves.

SENATE — Differs from House Bill in that terms and conditions for transmission service provided to others would be required to be comparable to those FERC requires of investor-owned systems. This difference is strongly opposed by American Public Power Association and National Rural Electric Cooperative Association.

ISSUE — Federal RTO participation.

HOUSE — Authorizes federal transmitting utilities such as TVA to voluntarily join regional transmission organizations — but only in a manner consistent with their statutory obligations and limitations. TVA Board would decide whether TVA would participate voluntarily.

SENATE — No provision in Senate bill.

ISSUE — Interstate transmission-line siting.

HOUSE — Would establish a consolidated process overseen by Secretary of Energy for National Environmental Policy Act environmental reviews.

SENATE — No provision in Senate bill.

ISSUE — Establishment of Electric Reliability Organization.

HOUSE — Contains longstanding proposal to transform current electric-power industry's "self-policing" reliability regime under North American Electric Reliability Council with a new federal regulatory body — basically by chartering NERC and giving it regulatory authority under general oversight of FERC.

SENATE — Contains essentially same provision as House bill.

ISSUE — Clean-coal technologies.

HOUSE — No provision in House bill.

SENATE — TVA would be permitted to get credits against its annual payments to U.S. Treasury for investments in qualified clean-coal technologies.

ISSUE — Nuclear (Price Anderson Reauthorization).

HOUSE — Extends nuclear insurance plan until 2017 both for Nuclear Regulatory Commission licensees (mainly nuclear power plants) and Department of Energy contractors.

SENATE — Extends plan through 2012 for NRC licensees and nonprofit educational institutions. Indemnity of DOE contractors is extended indefinitely.

ISSUE — FERC uniform-refund authority.

HOUSE — Extends uniform-refund authority over spot-market sales of wholesale power that are above just and reasonable rates to public-power systems, including federal entities such as TVA, selling 4 million megawatt-hours annually or more.

SENATE — No provision in Senate bill.

ISSUE — Establishment of Electric Reliability Organization.

HOUSE — Contains longstanding proposal to transform current electric-power industry's "self-policing" reliability regime under NERC with a new federal regulatory body — basically by chartering NERC and giving it regulatory authority under general oversight of FERC.

SENATE — Contains essentially same provision as House bill.

ISSUE — PURPA (Public Utility Regulatory Policies Act)

HOUSE — This provision would amend that part of PURPA that requires each State Regulatory Authority to be required to consider whether certain "standards" should be applied to those electric utilities it regulates. Those standards would newly include "real-time pricing" and "net metering," the latter of which applies to certain qualifying renewable-energy generation owned by a retail customer. Until such time as TVA Title passes, TVA is State Regulatory Authority for all distributors whose retail rates it regulates.

SENATE — Contains similar language to House-passed bill.

ISSUE — Public Utility Holding Company Act.

HOUSE — Repeals PUHCA immediately.

SENATE — Repeals PUHCA immediately.

ISSUE — Standard Market Design.

HOUSE — No provision in House bill.

SENATE — No provision in Senate bill.

ISSUE — Service obligation (native-load protection).

HOUSE — FERC is directed to ensure that load-serving entities can use existing transmission rights or "equivalent" transmission rights before making transmission available to others.

SENATE — No provision in Senate bill.

ISSUE — Renewable-portfolio standard.

HOUSE — No provision in House bill.

SENATE — This section would amend Title VI of Public Utility Regulatory Policies Act of 1978 to require retail electric suppliers to have renewable-energy credits in amounts equal to from 1 percent in 2006 to 10 percent in 2020 of total electric energy sold to consumers. Affected retail suppliers are those that sell electric energy to consumers and sold not less than 1 million megawatt-hours of electric energy. Public-power electric utilities and rural electric cooperatives are exempt from requirement.

ISSUE — Production tax credit for renewable energy.

HOUSE — Provides a production tax credit for private utilities and developers only; no tradable tax credit mechanism for public power. Provides 1.8-cent-per-kwh production tax credit allowable for wind, closed-loop biomass, open-loop biomass, landfill gas and trash-to-energy facilities, indexed for inflation.

SENATE — Provides a 1.7-cent-per-kwh production tax credit/tradable tax credit for wind, closed-loop biomass, open-loop biomass, poultry waste, geothermal energy, solar energy, swine and bovine waste nutrients, municipal biosolids and recycled sludge and small irrigation power facilities.

ISSUE — Climate change.

HOUSE — No provision in House bill.

SENATE — This title establishes a greenhouse-gas-emissions database that would include an inventory of emissions from significant sources and a registry of voluntary reductions. Reporting of both emissions and emissions reductions to registry would be voluntary for first five years, then would become mandatory if voluntary reporting covered less than 60 percent of "national aggregate anthropogenic greenhouse gas emissions." Agricultural producers would be exempt from this mandatory reporting requirement. Database would be overseen under another interagency Memorandum of Agreement, but lead agency would be Environmental Protection Agency, rather than Department of Energy.

ISSUE — CAFE (corporate average fuel economy).

HOUSE — Authorizes \$5 million for National Highway Traffic Safety Administration to implement and enforce average fuel economy standards for fiscal years 2004–2006.

SENATE — Requires National Highway Traffic Safety Administration to propose tougher CAFE standards within 15 months; establishes that federal fleets must purchase at least 10-percent ethanol-blended gasoline; bans methyl tertiary butyl ether, while retaining possibility of state exemptions; and eliminates Clean Air Act 2-percent oxygenate mandate.

ISSUE — Arctic National Wildlife Refuge leasing.

HOUSE — Directs Secretary of Interior to establish and implement a leasing program for exploration, development and production of oil and gas resources of 1,002-acre area of Arctic Coastal Plain. Also limits maximum amount of surface acreage covered by production and support facilities to at most 2,000 acres.

SENATE — No provision in Senate bill.